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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,237	12/28/2001	Duane D. Grosskrueger	41992-00527	3353

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EXAMINER

NOLAN, SANDRA M.

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,237

Applicant(s)

GROSSKRUEGER ET AL.

Examiner

Sandra M. Nolan

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 and 25-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claims

1. Claims 1-41 are pending.

Election/Restrictions

2. Applicant's election without traverse of Group II (claims 14-24) in Paper No. 4 (the response of 23 June 21-003) is acknowledged.
3. This application contains claims 1-23 and 25-41 drawn to an invention nonelected with traverse in Paper No. 4. A complete reply to any final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on 29 April 2002 (Paper No. 2) was considered by the examiner.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 14-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What does "wherein the combined thickness of the first face sheet, said core, and said second face sheet in said first and second positions is equal" mean? What is

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the combined thickness equal to? Does the core's thickness vary while the overall structure's thickness is constant?

Please clarify the claims.

7. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What does "wherein said step of applying said first and second plurality of fiber reinforced material layers further comprises one of increasing and decreasing said plurality of reinforced fiber material layer [sic] in an inverse relation with changes in thickness of said core" mean?

A. What is increasing and decreasing? The number of layers? Their thickness?

B. Does the thickness of each layer decrease as the thickness of the core increases? Does the thickness of each layer increase as the thickness of the core decreases?

Please clarify the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 14-17, 20-21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Happy (US 5,935,704) in view of Corbett et al (US 5,895,699).

Happy teaches a pole made by winding resin-impregnated fibers around a mandrel and curing the wound mandrel (col. 1, lines 19-25). The mandrel can be removed (col. 1, line 29). At col. 3, lines 8-24 and 54-61, it teaches that the pole is thicker at its base than at its top and that the number of windings increases with thickness.

Happy teaches that helical winding can lead to sliding of reinforced layers (col. 2, lines 25-26). The examiner deems "sliding" to be the same as "slipping".

Happy fails to teach a core having variable thickness.

Corbett shows in Figure 6, a tapered core **106** having multiple facing layers **102** of equal total thickness thereon. Fiber-reinforced resin layers are used at **102** (col. 4, lines 64-67). Note that the thickness in the panel and chamfer sections are the same. Corbett teaches that, in its structure, the slipping of layers relative to the core is prevented (abstract).

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The references are analogous because they both deal with multilayer fiber-reinforced resin structures.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the tapered core and multiple facing layers of Corbett when making the poles of Happy in order to prevent sliding between Happy's layers.

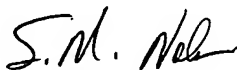
The motivation to employ Corbett's core and facing layers in Happy's pole is found at col. 2, lines 25-26 of Happy and in Corbett's abstract, where the sliding of layers (Happy) and the prevention of such sliding (Corbett) are discussed.

It is deemed desirable to produce poles whose layers do not slide in order to enhance the structural integrity of the poles.

Conclusion

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If attempts to reach the Examiner by telephone are unsuccessful, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.



S. M. Nolan
Patent Examiner
Technology Center 1700

SMN/smn
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29 August 2003